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REMARKS

Claims 1, 9, 12 and 17-20 have been canceled.

Claims 5, 10, 13-16 and 21 have been amended.

Claims 2-8, 10-11, 13-16 and 21 are pending.

Allowable Subject Matter

The Office Action indicated that Claims 14 and 16 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant has rewritten Claim 16 in independent form, which is now allowable. Claims 10-11 and 13 and 15 depend from Claim 16 and are also now allowable. Furthermore, Applicant has incorporated allowable subject matter into Claims 5 and 21, which include further limitations as to hearing aid elements, Claims 5 and 21 now also being allowable. Claims 2-4 and 6-8 depend from Claims 5 and are also now allowable.

Request for Telephonic Interview

Applicant believes that the rejections have been thoroughly addressed below. Applicant further believes that the inapplicability of Lucey to Applicant's claimed invention is a crucial point to these arguments. Therefore, Applicant respectfully requests that the case be allowed. However, if Examiner has any further issues as to the clear novelty and non-obviousness of Applicant's claimed invention, Applicant respectfully requests a telephonic interview between Examiner Dabney and Attorney for Applicant, Greg O'Bradovich.

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Claim Rejections

The Office Action has relied solely on the reference to Lucey et al, US Patent No. 5,410,608, for the basis of both the 35 U.S.C. §102 and the 35 U.S.C. §103 rejections. Applicant strongly traverses the rejections based on the fact that Lucey does not ever disclose a hearing aid or even “boundary mode” and “pressure zone” microphones. In fact Lucey solely discloses a microphone boom, which does incorporate a microphone, but does not exploit any acoustical characteristics of microphones. In contrast, Applicant’s claimed invention exploits acoustical phenomena in creating *acoustical* boundaries by the use of a first surface boundary to which the microphone element is flush to put the microphone into an *acoustical* boundary mode as well explained in Applicant’s specification. Furthermore, Applicant has added a second boundary opposed to the microphone to create a pressure zone. Lucey solely recites structure and function, both electrical in nature, to prevent shock from electrostatic discharge.

The entire purpose of Lucey is to prevent static electrical discharge and makes no claims to acoustical performance of the microphone boom. Each and every claim and every description of Lucey is to electrical characteristics of the microphone boom. The Office Action has admitted that the reference is electrical in all aspects by pointing out Col. 4 lines 44-51 and lines 65-68 that impedance matching is attained through the Lucey invention, impedance being another word for electrical resistance caused by Ohmic resistance as well and capacitive and inductive resistance. Applicant makes no such claim. Lucey is not for the control of the pattern and sensitivity of the microphone element, but for the control of built up static charge on the boom microphone assembly in which the microphone functions. Lucey makes no claim for enhanced performance of the microphone, only that the microphone device is protected from static electricity shock which might destroy the microphone, or the reverse, the electric charge on the microphone housing can cause an electric shock to the wearer. Therefore, Lucey is entirely irrelevant to the Examination of Applicant’s claimed invention.

35 U.S.C. §102

The Office Action rejected Claims 2-6, 8, 10 and 12-13 under 35 U.S.C. 102(b) as being anticipated by Lucey et al (US Patent No. 5,410,608). Applicant respectfully traverses the rejection.

As to Claim 5, Lucey does not ever teach a hearing aid. Applicant's claimed invention is to a hearing aid for which users implement to amplify ambient sound, particularly for hearing impaired persons as clearly discussed in the specification. Lucey is specifically to headset assemblies for devices such as telephones, and is in no way a hearing aid as described in Applicant's specification.

As described above, the Lucey reference describes a device for the prevention of an electrical discharge. Lucey's baffle 40, which the Office Action states is a boundary button, has absolutely no acoustical effect on the device. As the Office Action has pointed out in Column 4, and as Applicant points out more specifically in Col.4, lines 17-21, "the baffle increases the physical path length such electrostatic charges must travel to discharge on the exposes conductors 18a, 18b, the microphone housing 30a or the printed circuit board cover 30b". Therefore, the baffle 40 is an entirely electrical and *not* at all an acoustical device in Lucey. In fact, referring specifically to Fig. 3 in Lucey, the microphone is completely acoustically isolated from the baffle 40. There is absolutely no acoustical coupling between baffle 40 and the microphone 30. In addition, the baffle 40 is *behind* the microphone element and therefore clearly not in opposition to the microphone element. Since there is no acoustical coupling is possible, in no way can a pressure zone be inherent because there can be no pressure zone without physical acoustical wave patterns. A pressure zone can only be inherent with a microphone in the proper positioning, which it is not present in Lucey. Furthermore, the microphone is deeply embedded inside the housing 24 and boot 28 and clearly no where near the upper surface of the housing and the recess 24b and cavity 25. In order for Lucey to exploit any sort of acoustical boundary effects, the microphone would have to be at minimum embedded in the bore 29. If fact, the interposition of the cavity 25 between the microphone 30 and the bore 29 makes it physically impossible for a boundary mode microphone to be created.

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In contrast, Applicant's microphone is embedded and flush with the boundary surface and clearly shown in the specification and Applicant's Fig. 4. Therefore, a boundary mode is automatically created as described in the specification. Further, the boundary button is positioned directly in front of the microphone, *thereby creating an acoustical pressure zone*. Therefore, Applicant's claimed invention utilizes boundary mode effects and pressure zone effects to create a natural three dimensional pick up pattern of the hearing aid, allowing for phase relationships of ambient sounds to be picked up by the microphone, which is impossible in Lucey by the positioning of the microphone.

Applicant has amended the claims to more clearly recite the novelty and non-obviousness of Applicant's claimed invention.

35 U.S.C. §103

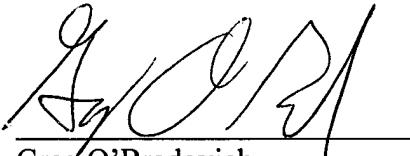
The Office Action rejected Claims 7, 11, 15 and 21 under 35 U.S.C. 103(a) as being unpatentable over Lucey. Applicant submits that in light of the above arguments, the rejection is moot. Specifically, as described above, the Lucey reference discloses an apparatus for preventing the electrostatic discharge of a microphone, which can shock the user. Therefore, there is no suggestion at all in Lucey to modify the reference to result in any apparatus that is disclosed by Applicant as a three dimensional microphone. In addition, in order to make any such modification would require the baffle to be put on the front of the microphone, which would put the baffle in direct contact with the user and therefore, when electricity is discharged through the baffle as described in Lucey, the baffle would shock the user, which is in direct contradiction with the teachings of Lucey. Therefore, any of the proposed modifications destroy the intended function of Lucey which is to take shock away from the user.

Applicant has added identifiable allowable subject matter to claim 21 to further recite the non-obviousness of Applicant's claimed invention.

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If Examiner has any questions regarding this document, Applicant asks that Examiner contact the undersigned immediately by telephone.

Respectfully submitted,



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